

## REMARKS

By the present reply, claims 1, 3-4, 22, 25, 32, and 33 have been amended, and claim 2 has been canceled without prejudice. No claims have been added. Accordingly, claims 1 and 3-33 are presently pending, and favorable reconsideration thereof is respectfully requested.

### **35 U.S.C. §102(b)**

The Examiner has rejected claims 1-3, 32, and 33 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,863,246 to Bujak, Jr. ("Bujak").

The standard for an anticipation rejection under 35 U.S.C. §102 has been well established by the Court of Appeals for the Federal Circuit, and is summarized in M.P.E.P. § 2131. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). ... "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, *i.e.*, identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

#### Claim 1

Claim 1, as amended, recites:

1. Apparatus for controlling the delivery of air in a forced air distribution system having a source of air under pressure, comprising:

at least one duct defining a common duct system to deliver the air and at least two outlet ports in the duct system, each said outlet port in fluid communication with a corresponding air delivery zone;

a vent unit associated with each said outlet port movable between an open position to admit air to the corresponding zone and a closed position to block air from the corresponding zone;

a central control system remote from each said vent unit;

a temperature sensor in each said air delivery zone in communication with the central control system; and

an actuator unit associated with each said vent unit, each said actuator unit operable to configure said associated vent unit into said open position or into said closed position in response to communication from said central control system.

Applicant respectfully submits that Bujak fails to disclose actuator units operable to configure associated vent units into open or closed positions in response to communication from said central control system as recited in amended claim 1, and accordingly Applicant respectfully submits that Bujak fails to anticipate claim 1 as amended.

Bujak discloses a system that controls the movement of conditioned air to individual zones. In the system disclosed in Bujak, air moves down a supply duct to various branch ducts, and dampers within these branch ducts control the flow of conditioned air to respective zones associated with the branch ducts. Zone controls control the temperatures within the respective zones by modulating the positions of these dampers using motors. A system controller receives damper position information from the zone controls. However, Applicant respectfully submits that in the system disclosed in Bujak, each of the zone controls independently controls the respective dampers, and accordingly Bujak fails to disclose actuator units operable to configure associated vent units into open or closed positions in response to communication from said central control system, as recited in amended claim 1. Therefore, Applicant respectfully submits that Bujak fails to disclose each and every element as set forth in claim 1, and therefore fails to anticipate claim 1. Accordingly, Applicant respectfully submits that the Examiner's rejection of claim 1 under 35 U.S.C. §102b has been overcome and should be withdrawn.

Moreover, Applicant respectfully submits that the apparatus disclosed in claim 1 produces a result that is new and unexpected in view of Bujak. As explained on page 4, lines 10-12 of Applicant's originally filed disclosure, the apparatus of claim 1 is particularly suited for retrofitting a home having existing duct work to enable room-by-room control of forced air without major renovations. Applicant respectfully submits that actuator units operable to

configure associated vent units into opened and closed positions in response to communication from a central control system enables more inexpensive and efficient retrofitting of a home having existing duct work, because a central control system can eliminate the need to install separate zone controls as disclosed in Bujak, which could be more expensive to install in a retrofitting operation. Accordingly, Applicant respectfully submits that the apparatus of claim 1 achieves a new and unexpected result in view of Bujak.

#### Claim 2

By the present reply, Applicant has canceled claim 2 without prejudice. Accordingly, Applicant respectfully submits that the Examiner's rejection of claim 2 under 35 U.S.C. §102(b) has been overcome.

#### Claim 3

Claim 3, as amended, recites:

3. Apparatus as claimed in claim 1 including a communication system for allowing the actuator unit to communicate with the central control system, the communication system extending through the duct system.

By the present reply, claim 3 has been amended to depend directly on claim 1. Accordingly, Applicant respectfully submits that claim 3 is allowable due to its dependence on claim 1, and due to the additional subject matter that claim 3 recites.

For example, Applicant respectfully submits that Bujak fails to disclose a communication system for allowing an actuator unit to communicate with a central control system, the communication system extending through the duct system. Again, Applicant respectfully submits that the communication system extending through the duct system produces a new and unexpected result in view of Bujak, because the use of an existing duct system for a communication system may simplify the process of distributing a communication system throughout an existing house having an existing duct system, thereby enabling a more efficient retrofitting operation. Accordingly, Applicant respectfully submits that the apparatus of claim 3

produces a new and unexpected result in view of Bujak, and that the Examiner's rejection of claim 3 under 35 U.S.C. §102b is improper and should be withdrawn.

Claim 32

Claim 32, as amended, recites:

32. Apparatus for controlling the delivery of air in a forced air distribution system having a source of air under pressure, comprising, in combination:

at least one duct defining a common duct system to deliver the air and at least two outlet ports in the duct system, each said outlet port in fluid communication with a corresponding air delivery zone;

a register unit having a valve associated with each said outlet port, the valve being movable between an open position to admit air to the zone and a closed position to block air from the zone;

an actuator unit associated with each said register unit, each said actuator unit operable to configure said valve of said associated register unit into said open position or into said closed position;

a central control system remote from the register units for controlling the actuator units; and

a thermostat in each air delivery zone for setting a desired temperature in each of the air delivery zones, the thermostats being in communication with the central control system, and the central control system being operable to control the actuator units and the source of air under pressure such that the valves admit air to the corresponding zones and block air from the corresponding zones, in order to achieve said desired temperatures.

Claim 32, as amended, recites limitations similar to those in claim 1, as amended. Accordingly, for reasons similar to those given in relation to claim 1, Applicant respectfully submits that Bujak fails to disclose a central control system being operable to control the actuator units, and accordingly Bujak fails to anticipate claim 32 as amended. Therefore, Applicant

respectfully submits that the Examiner's rejection of claim 32 under 35 U.S.C. §102b has been overcome and should be withdrawn. Moreover, for reasons similar to those given in relation to claim 1, Applicant respectfully submits that the apparatus of claim 32 provides a new and unexpected result in view of Bujak.

Claim 33

Claim 33, as amended, recites:

33. Apparatus for controlling the delivery of air in a forced air distribution system having a source of air under pressure, comprising:

at least one duct defining a common duct system to deliver the air;

at least two outlet ports defined in the duct system, each of said outlet ports in fluid communication with a corresponding air delivery zone;

a vent unit associated with each of said outlet ports movable between an open position to admit air to each said zone, respectively, and a closed position to block air from each said zone, respectively;

an actuator unit associated with each said vent unit, each said actuator unit operable to configure said associated vent unit into said open position or into said closed position;

a central control system remote from the vent units for controlling the actuator units;  
and

a temperature sensor in each said air delivery zone in communication with the central control system to control operation of the actuator units and the source of air under pressure.

Claim 33, as amended, recites limitations similar to those in claim 1, as amended. Accordingly, for reasons similar to those given in relation to claim 1, Applicant respectfully submits that Bujak fails to disclose a central control system for controlling the actuator units, as recited in amended claim 33. Accordingly, Applicant respectfully submits that Bujak fails to anticipate claim 33 as amended, and that the Examiner's rejection of claim 33 under 35 U.S.C.

§102b has been overcome and should be withdrawn. Moreover, for reasons similar to those given in relation to claim 1, Applicant respectfully submits that the apparatus of claim 33 provides a new and unexpected result in view of Bujak.

### **35 U.S.C. §103(a)**

#### Claims 4-8 and 12-20

The Examiner has rejected claims 4-8 and 12-20 under 35 U.S.C. §103a as being obvious over Bujak in view of United States Patent No. 6,694,759 to Bash *et al.* (“Bash”).

Applicant respectfully notes that the present application is a National Phase Entry of PCT Application PCT/CA2001/001798, which was filed on December 12, 2001. Applicant also respectfully notes that Bash was issued on February 24, 2004, pursuant to an application filed on January 27, 2003. Accordingly, Applicant respectfully submits that Bash is not citable against the present application under any of the categories of 35 U.S.C. §102, and accordingly the Examiner’s rejection of claims 4-8 and 12-20 under 35 U.S.C. §103a in view of Bash is improper and should be withdrawn.

Moreover, Applicant respectfully notes that claims 4-8 and 12-20 depend directly or indirectly from independent claim 1. As Applicant has explained above, Bujak fails to disclose or suggest all of the elements recited in claim 1. Accordingly, Applicant respectfully submits that Bujak fails to disclose or suggest all of the elements of claims 4-8 and 12-20. Therefore, Applicant respectfully submits that claims 4-8 and 12-20 are allowable due to their dependencies, and the rejection of these claims under 35 U.S.C. §103a should be withdrawn.

#### Claim 21

The Examiner has rejected claim 21 under 35 U.S.C. §103a as being unpatentable over Bujak in view of United States Patent No. 4,631,872 to Daroga (“Daroga”). Claim 21 depends directly from independent claim 1. As explained above, Bujak fails to disclose or suggest all of the elements of claim 1 as amended. Accordingly, Applicant respectfully submits that claim 21 is allowable due to its dependency, and that the rejection of claim 21 under 35 U.S.C. §103a should be withdrawn.

#### Claims 22-24

The Examiner has rejected claims 22-24 under 35 U.S.C. §103a as being unpatentable over Bujak in view of United States Patent No. 5,833,134 to Ho *et al.* ("Ho"). Claims 22-24 depend indirectly from independent claim 1. As explained above, Bujak fails to disclose or suggest all of the elements of independent claim 1, and accordingly, Applicant respectfully submits that claims 22-24 are allowable due to their dependencies.

Moreover, in determining the differences between the prior art and the claims, the question under 35 U.S.C. §103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983).

Accordingly, Applicant respectfully submits that even if all of the recited elements of claims 23-24 were found in the prior art, the mere inclusion in Ho of a wireless remote temperature sensing system fails to render the claims obvious.

Ho discloses a wireless remote temperature sensing and control thermostat system for regulating air ducted air conditioning systems. Ho discloses a control thermostat system comprising a transmitter unit. When the system disclosed in Ho is in normal mode, the system operates in a manner similar to any of the many thermostats found in the prior art. And when the system in Ho is in remote control mode, the transmitter unit takes over the temperature sensing at a remote site. Accordingly, Applicant respectfully submits that the system disclosed in Ho varies a conventional system having a single thermostat by enabling the functions of that thermostat to be performed by a transmitter unit that can be moved to various locations. Thus, Applicant respectfully submits that the system in Ho remains essentially a one-thermostat system, wherein a single thermostat controls air supplied to a plurality of locations. Therefore, Applicant respectfully submits that there would be no apparent reason to combine the wireless remote temperature sensor disclosed in Ho to arrive at the invention of claims 23-24.

Furthermore, Applicant respectfully submits that Ho teaches away from the combination recited in claims 22-24. The system disclosed in Ho specifically comprises manually controllable registers. See for example, column 3 lines 1-2, column 6 lines 35-37, and column 8 lines 48-55. However, claim 1 recites actuator units associated with vent units, wherein the actuator units are operable to configure the vent units into open positions and closed positions. Accordingly, Applicant respectfully submits that Ho would lead a person of ordinary skill in the art away from the apparatus of claims 22-24.

Accordingly, Applicant respectfully submits that the Examiner's rejection of claims 22-24 under 35 U.S.C. §103a is improper and should be withdrawn.

#### Claims 25-31

The Examiner has rejected claims 25-27 under 35 U.S.C. §103a as being unpatentable over Bujak in view of United States Patent No. 4,259,896 to Hayashi *et al.* ("Hayashi"). Claims 25-31 as amended depend directly or indirectly from independent claim 1. As explained above, Applicant respectfully submits that Bujak fails to disclose all of the limitations of claim 1, and accordingly, Applicant respectfully submits that claims 25-31 due to their dependencies on claim 1. Accordingly, Applicant respectfully submits that the Examiner's rejection of claims 25-31 under 35 U.S.C. §103a should be withdrawn.

In light of the foregoing amendments, it is respectfully submitted that the application should now be in condition for allowance, and an early favorable in this regard is respectfully requested.



The Commissioner is authorized to charge any deficiencies or fees in connection with this amendment to Deposit Account No. 06-2425.

Respectfully submitted,

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